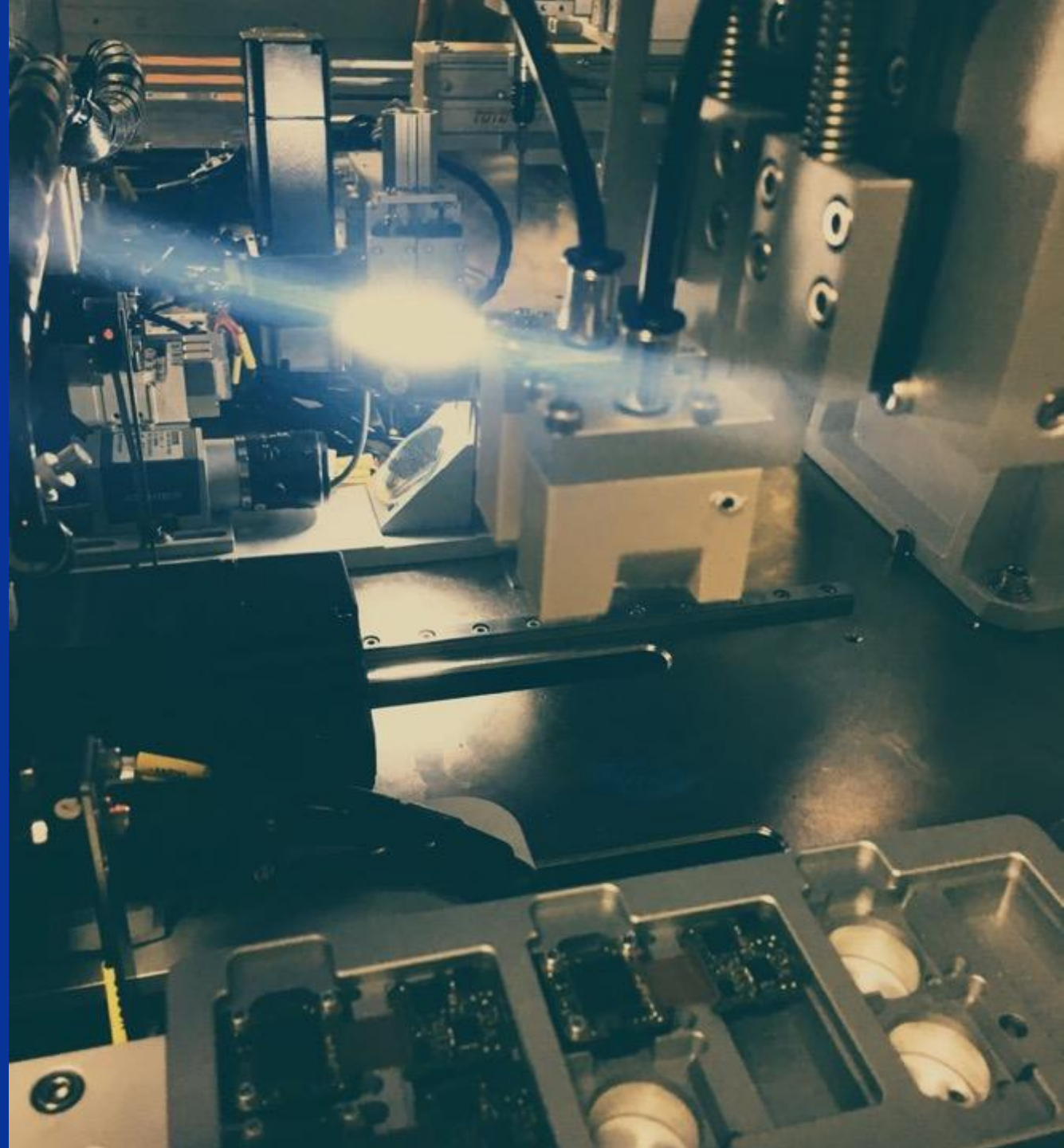




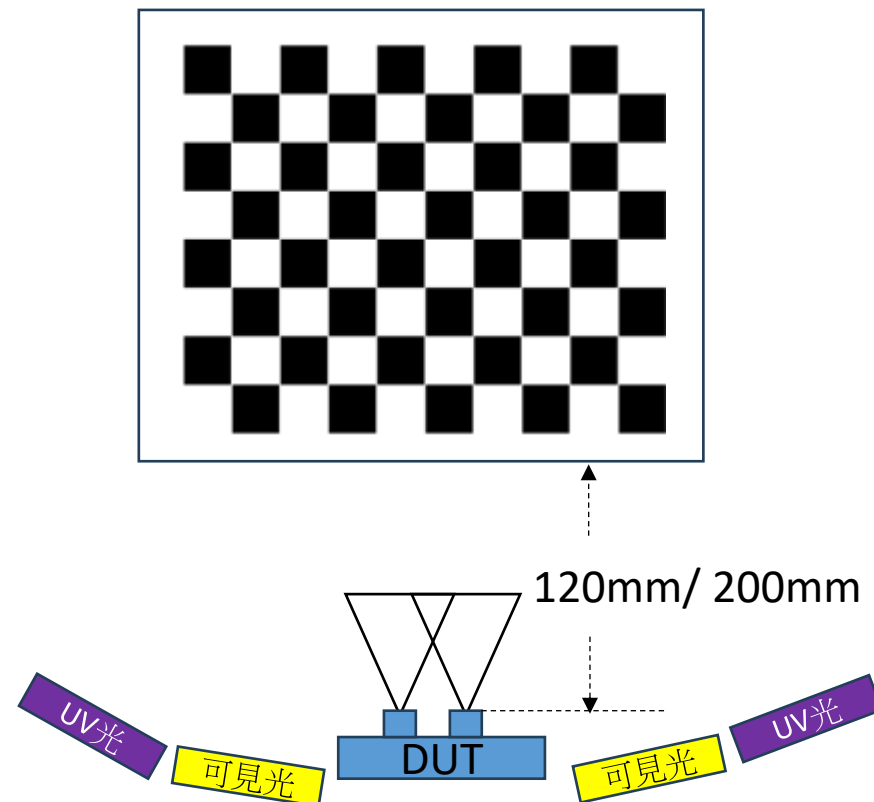
**NEW SMART
TECHNOLOGY**

Dual Camera Calibration

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- 测试环境
 1. 光源：
 - 可见光 : 2900 ± 100 Lux, $6500K \pm 200K$
 - UV光 365nm : TBD (成像亮度均匀且对比度高)
 2. 测试距离 : 120mm/200mm
 3. Chart : 漫反射标定板
 4. Chart Pattern : 12x9 棋盘格
 5. Chart : [购买参考连结](#), GP150与GP200
- 校正规格
 - X Shift < TBD
 - Y Shift < TBD
 - Rotation < $\pm 1.5^\circ$



Dual Camera Calibration DLL

```
namespace NST {  
    public ref struct Image { // calibration 輸入的資料格式  
        array<System::Byte>^ data;  
        int width;  
        int height;  
        int channels;  
    };  
    public enum class ErrCode { // calibration回傳的error code  
        Pass = 0,  
        Fail = 1  
    };  
    public ref class DualCameraCalibration { // 主要類別  
    public:  
        DualCameraCalibration() {};  
        ~DualCameraCalibration() {};  
  
        ref struct CaliResult { { // calibration回傳的校正結果,請依SN記錄到產測log (ex:csv檔)  
            int dx;  
            int dy;  
            double rotate;  
        };  
  
        System::ValueTuple<ErrCode, CaliResult^> calibration(Image^ rgb, Image^ uv); // 雙目校正API,輸入rgb與uv影像  
    };  
}
```

具體引用方式可參考demo code:
dual_camera_calibration.7z

EEPROM Contents

		名稱	位址	Size(Byte)	Contents
HW info (TBD)	{	Header	0x00	2	0x55AA
		Board Name	0x02	11	'K','U','N','L','U','N','-','D','U','A','L'
		HW Version	0x0D	2	TBD
		Serial Number	0x0F	16	TBD
		Reserved	0x20	15	Reserved
Calibration info	{	Near Distance	0x30	1	Near calibration distance in cm, 0x00 means no calibration
		Far Distance	0x31	1	Far calibration distance in cm, 0x00 means no calibration
		Reserved	0x32	13	Reserved
Calibration results	{	Near X shift	0x40	2	Near Distance X shift
		Near Y shift	0x42	2	Near Distance Y shift
		Near Rotation	0x44	1	Near Distance Rotation (CaliResult.rotate * 10)
		Far X shift	0x45	2	Far Distance Far X shift
		Far Y shift	0x47	2	Far Distance Far Y shift
		Far Rotation	0x49	1	Far Distance Far Rotation (CaliResult.rotate * 10)
		Reserved	0x4A	TBD	Reserved

Q&A

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